**Title: Introduction to Hypermedia**

**Link to Outcomes:**

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|---|---|
| ● **Application of Technology Systems** | Students will demonstrate knowledge and skills regarding diverse technology systems, including functioning and applications. |
| ● **Problem Solving Using Technology** | Students will demonstrate the ability to solve problems with technology using a systems approach, higher order thinking skills, individual and collaborative ingenuity, and a variety of resources including information, tools and materials. |
| ● **Using Technology Resources** | Students will demonstrate in an experiential setting the safe, effective and creative use of technology resources--including tools, machines, and materials--in performing technological processes. |
| ● **Application of Science, Mathematics and Other Areas** | Students will apply science, mathematics, language arts, social studies, and technological concepts to solve problems. |
| ● **Career Information** | Students will apply knowledge of and perform tasks representative of technology-based careers. (Examples: engineer, technologist, technician, and craftsperson.) |

**Brief Overview:**

This lesson is designed to provide an introduction to Hypermedia and its various capabilities and uses through the development of a student-designed program using the authoring system *HyperCard*™. This lesson will provide integration of math, science, and language arts into a technology-based application.

**Grade/Level:**

Grades 6-8, Technology Education

**Duration/Length:**

12-15 class periods will be needed to effectively implement this lesson.

**Prerequisite Knowledge:**

- computer skills: mouse use, car and handling of disks/magnetic media
- ability to write cohesive paragraphs using proper grammar and mechanics
- basic geometric design and positioning
- measurement skills in various base units

**Objectives:**

The students will be able to:

- produce a multicard interactive hypermedia presentation using HyperCard authoring software.
- develop a working knowledge of the basic HyperCard authoring tools including buttons, text fields, transitions, paint palettes, creating and importing computer-generated graphics into HyperCard presentations, using HyperCard creatively to communicate to a given audience.

**Materials/Resources/Printed Materials:**

- Macintosh computers capable of running *HyperCard 2.2*
- ***HyperCard 2.2***
- graphic-capable computer
- computer clip art
- a compatible draw or paint program
- 3 x 5 index cards
- story board handouts (master included)
- high density floppy disks

**Development/Procedures:**

**Period 1:**

Introduce Hypermedia as a means of nonlinear organization of information. Use 3 x 5 index cards as examples. Review the basics of Macintosh computer operations. Open HyperCard 2.2 and open pre-existing stacks to allow students to explore samples of hypermedia.

**Period 2 & 3:**

Have students take the HyperCard tour (provided with the HyperCard development kit). Have the students take notes using handouts provided: What are cards, stack, buttons, fields, paint tools, backgrounds, linking, effects?

**Period 4:**

The students create a card. Use the point tools to draw an image on the card. The students then follow the procedure to create a second card with a new image. Use the arrow keys to move back to the first cared. Create a button on card 1. Double-click on the "New Button" to open the button information dialogue box. Name the button "Next Card."

Show the students the types of button styles available and let each choose a style. Click on the "Link" button to open the linking dialogue box. Use the arrow keys to move to the second card. Select the "This Card" option. Allow students to explore the different effects available and choose one for the transition between cards 1 and 2.

The students will then move forward to card 2 using the arrow keys. Follow the same procedure to create a button and name it "Previous Card" allowing for student selection of button style and transition effect. Link the button to the first card by activating the "Link" button from the button information dialog box and using the arrow keys to move back to card 1. Then select the "This Card" option. The cards are now linked together in a stack. Have the students select the browser tool from the tool menu.

This icon is used to navigate through the stack. By clicking on the newly created buttons with the browser tool the students will move from one card to the next and back.

**Period 5:**

Introduce text fields to the students by following the operations to insert a field on to their cards. The students will open their previously created stack and select the text field tool from the menu. They will create and size a text field on card one placing it where they choose on the card. Double clicking on the field will open the field information dialogue box.

Allow the students to explore and choose a field style. Now choose the browser tool from the menu and click the mouse in the text field. Point out to the students that the cursor has change from a hand type icon to and I bar cursor for word processing.

Allow the students to type text into the field. Using the browser tool and buttons move to the next card and repeat the procedure creating a text field on the second card. Now have students close the program and shutdown the computers. Introduce the problem. Explain to the students that they will construct an interactive multiple ending story using HyperCard 2.2.

The teacher starts the story with a short section and stops at a point leaving 2 choices. These will be written on index cards. Two students are given one choice each. They in turn add a segment to the story and create 2 more choices each. These are given 1 each toa student who follows the same procedure. Continue until every student receives a choice and writes a segment of the story.

The students at the end write conclusions. The students produce a HyperCard card that tells and illustrates their own segments of the story, including buttons for the 2 choices and to return to the previous card.

**Periods 6-11:**

Allow the students to work on the creation and development of their story card using the techniques demonstrated in the tour and the samples of backgrounds, buttons, fields, and artwork.

**Period 12:**

Working in cooperative learning groups, the students will then link their cards in order together to complete their interactive user-directed story.

**Evaluation:**

- The teacher will use observations of group interaction and production.
- A quiz on vocabulary and tool function will be given.
- The students will write an essay describing an application of HyperCard stacks and the development of a stack for that use.
- The teacher and class will critique the operation and design of the interactive story stack produced by the class.

**Extension/Follow Up:**

The students will develop on their own a second HyperCard stack related to a topic from another curricular area (e.g., book reports, science lab reports, science fair presentations, interactive social studies reports). The students will utilize all of the functions and tools of HyperCard. The student-developed stacks can be shared and compared with other schools and student produced work via the Internet and on-line services.

**Authors:**


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**Hypercard Worksheet # 1**

**Welcome** to HyperCard. Because you are here, you are now considered a HyperKid. HyperKids are HyperKids because they are students of HyperCard. By the end of the two week session, we hope that you will learn enough to be able to use HyperCard to create your own HyperActivities for school, for home and (most importantly) for FUN!!!!

First we will go over some MacIntosh basics to make sure that everyone is comfortable with the computers we will be using. Then, we will take a guided tour of HyperCard to get a rough idea of just how HyperCard works. Once we understand a bit more about HyperCard, we will discuss ideas on how we can *use* this SUPERFANTASTIC program.

You will be taking some notes for your own reference, so please remember to bring a writing instrument (and maybe some extra paper) every day.

Well, let us begin our guided tour. . .

NOTES FROM THE GUIDED TOUR:

HyperCard:

Cross reference:

Cards:

Stacks:

What can you put in a HyperCard card?

Navigating:

buttons -

arrows -

"Go" menu -

"Home" card:

Points to remember:

More about cards:

layers -

background -

foreground -

Text fields:

Graphics:

Buttons:

Sounds:

More on stacks:

Points to remember:

Ideas for using HyperCard:

Storyboard Title _____ Name _____